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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/825,216      | 04/16/2004  | John Amico           | 32798-2003          | 7252             |

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EXAMINER

AZARIAN, SEYED H

ART UNIT PAPER NUMBER

2624

DATE MAILED: 10/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                      |                                     |  |
|------------------------------|--------------------------------------|-------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/825,216 | <b>Applicant(s)</b><br>AMICO ET AL. |  |
|                              | <b>Examiner</b><br>Seyed Azarian     | <b>Art Unit</b><br>2624             |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 April 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3 and 57-74 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 57-74 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 10/02/2006 has been entered.

### Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3 and 57-74, are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishikawa et al (U.S. patent 7,031,527) in view of Bankart et al (U.S. patent 4,575,628).

The subject matter claimed in the current application is fully disclosed in the patent (U.S. patent 7,031,527) and is covered by patent since the patent and application are claiming common subject matter, and does not make the claims patentably distinct from previous patent 7,031,527,

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because regarding claim 1, Ishikawa discloses a method of digitizing shapes, said method comprising (column 10, lines 19-20);

receiving at least one data representing at least one shape identifying at least one outline of the at least one shape in the at least one data, wherein the outline has a curvature (column 10, lines 21-24);

and identifying at least one corner of the at least one outline wherein said corner is identified by calculating the curvature of the outline in a neighborhood of a point on the outline and determining whether the curvature is at least a pre-defined minimum value (column 10, lines 25-29).

Although all of the features of the current claims of application are covered in the patented application, regarding limitations in the amended claims of 1, 2, and 3, Ishikawa clearly discloses identifying pattern (Fig. 1, column 2, lines 60-66, both the outline and the internal curves appear in the raster image as curves or further column 3, lines 16-27).

But applicant argues that Ishikawa does not explicitly state its corresponding “**identifying at least one** pattern element selected **from the group** including notches, grain lines, mirror lines, internal cutouts, grade lines, alternate grade lines, stripe reference lines, plaid reference lines, sew lines, cut/fold lines, and balance lines”. Therefore for these features, examiner is using the reference Bankart supplied with this action, in the same field of pattern scanning providing data to a computer which carries out lay planning, which teaches (see abstract, identifying information such as **grain direction**, piece identity and **drill holes**, further column 9, lines 27-39, it is possible electronically to identify scanned **pattern pieces**, and also holes, **grain** arrows, ID’s, **notches** and **grading points** within the pattern pieces.

Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Ishikawa invention that digitizes pattern shapes, receiving at least one data representing at least one shape where the outline has a curvature, identifying at least one corner by calculating the curvature of the outline in the neighborhood of a point on the outline and determining whether the curvature is at least a pre-defined minimum value according to the teaching of Bankart because it provides identifying one of a group of pattern elements including notches, grain lines for a more accurate and efficient method and process for digitizing shapes and patterns by image scanning techniques.

The other claims of current application has similar correspondence to claims of patent application.

Regarding claim 2, Ishikawa discloses a system for digitizing shapes, said system comprising: a memory arrangement including thereon a computer program, and a processing arrangement which, when executing the computer program is configured to: receive at least one data representing at least one shape, identify at least one outline of the at least one shape in the at least one data, wherein the outline has a curvature, and identify at least one corner having a relatively large average curvature of the at least one outline wherein said corner is identified by calculating the curvature of the outline in a neighborhood of a point on the outline and determining whether the curvature is at least a pre-defined minimum value (see claim 1, also column 10, lines 30-44).

Regarding claim 3, Ishikawa discloses Software stored in a computer-readable storage medium which, when executed by a processing arrangement, is configured to digitize shapes, said software storage medium comprising: a software program including: a first module which,

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when executed, receives at least one data representing at least one shape, a second module which, when executed, identifies at least one outline of the at least one shape in the at least one data, wherein the outline has a curvature, and a third module which, when executed, identifies at least one corner having a relatively large average curvature of the at least one outline wherein said corner is identified by calculating the curvature of the outline in a neighborhood of a point on the outline and determining whether the curvature is at least a pre-defined minimum value (see claim 1, also column 10, lines 46-60).

Regarding claim 57, Ishikawa discloses the method of claim 1, wherein identifying the at least one corner includes determining whether a point on the outline has the largest curvature in a neighborhood of a point (column 10, lines 61-64).

Regarding claim 58, Ishikawa discloses the method of claim 72, wherein identifying the at least one outline includes identifying a boundary between the color of the pattern and the color of the background (column 10, lines 65-67).

Regarding claim 59, Ishikawa discloses the method of claim 8, wherein the at least one outline is represented by a series of point coordinates (column 11, lines 1-2).

Regarding claim 60, Ishikawa discloses the method of claim 72, wherein said digitized shape corresponds to the shape of a pattern for producing sewn goods (column 11, lines 3-5).

Regarding claim 61, Ishikawa discloses the method of claim 72, wherein said digitized shape corresponds to the shape of a garment pattern (column 11, lines 6-7).

Regarding claim 62, Ishikawa discloses the system of claim 2, wherein identifying the at least one corner includes determining whether a point on the outline has the largest curvature in a neighborhood of a point (column 11, lines 8-11).

Regarding claim 63, Ishikawa discloses the system of claim 73, wherein identifying the at least one outline includes identifying a boundary between the color of the pattern and the color of the background (column 11, lines 11-14).

Regarding claim 64, Ishikawa discloses the system of claim 63, wherein the at least one outline is represented by a series of point coordinates (column 11, lines 15-16).

Regarding claim 65, Ishikawa discloses the system of claim 73, wherein said digitized shape corresponds to the shape of a pattern for producing sewn goods (column 11, lines 17-19).

Regarding claim 66, Ishikawa discloses the system of claim 73, wherein said digitized shape corresponds to the shape of a garment pattern (column 11, lines 20-21).

Regarding claim 67, Ishikawa discloses the software storage medium of claim 3, wherein identifying the at least one corner includes determining whether a point on the outline has the largest curvature in a neighborhood of a point (column 12, lines 1-4).

Regarding claim 68, Ishikawa discloses the software storage medium of claim 74, wherein identifying the at least one outline includes identifying a boundary between the color of the pattern and the color of the background (column 12, lines 5-9).

Regarding claim 69, Ishikawa discloses the software storage medium of claim 68, wherein the at least one outline is represented by a series of point coordinates (column 12, lines 10-12).

Regarding claim 70, Ishikawa discloses the software storage medium of claim 74, wherein said digitized shape corresponds to the shape of a pattern for producing sewn goods (column 12, lines 13-16).

Regarding claim 71, Ishikawa discloses the software storage medium of claim 74, wherein said digitized shape corresponds to the shape of a garment pattern (column 12, lines 17-19).

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With regard to claims 72-74, the arguments analogous to those presented above for claims 1-3 and 58-61 are respectively applicable to claims 6, 8 and 11-12.

### Other prior art cited

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(U.S. patent 6,587,745) to Polden et al is cited for curved line fill stitching in embroidery designs.

(U.S. patent 4,780,960) to Merz is cited for pattern, process and apparatus for obtaining a cutting template.

(U.S. patent 5,815,398) to Dighe et al is cited for method and apparatus for placing parts in a bounded region.

(U.S. patent 4,583,181) to Gerber et al is cited for fabric flaw related system.

(U.S. patent 5,831,857) to Clarino et al is cited for pattern alignment and cutting system.

(U.S. patent 4,575,628) to Bankart et al is cited for pattern scanner providing data to a computer, which carries out lay planning.

### **Contact Information**

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Seyed Azarian whose telephone number is (571) 272-7443. The examiner can normally be reached on Monday through Thursday from 6:00 a.m. to 7:30 p.m.



If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella, can be reached at (571) 272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application information Retrieval (PAIR) system. Status information for published application may be obtained from either Private PAIR or Public PAIR.

Status information about the PAIR system, see [http:// pair-direct.uspto.gov](http://pair-direct.uspto.gov). Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Seyed Azarian*  
*Patent Examiner*  
*Group Art Unit 2624*  
October 18, 2006

A handwritten signature in black ink, appearing to read "Seyed Azarian", written in a cursive style.